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EDITOR.

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APICULTURAL NEWS ITEMS.

EDITORIAL AND SELECTED.

The Coming Winter will be a "remarkable one, remembered in history for its severity;"—so says Professor C. C. Blake, a scientist, of Richland, Kansas, in his latest paper, *The Future*. Some "weather prophets," however, do not agree with this prediction. Prof. Blake is said to be an extraordinary mathematician, astronomer, and physicist, and has been very successful in his predictions, so far. Next week we will give his predictions in full.

The Golden Jubilee of the great bee-master, Dr. Dzierzon, was held at Heidelberg, Germany, on Sept. 15, 1885. It was attended by the prominent bee-masters of Europe, and was a very enthusiastic gathering. Dr. Dzierzon was presented with many "diplomas of honor" by the various apicultural societies of Continental Europe, prominent among which was the one from the Italian Society, presented with an address by Prof. G. B. Grassi, who was sent there, from Milano, for that purpose. A banquet and grand concert concluded the Jubilee.

The Joint Western Classification Railroad Committee at their late meeting in St. Paul, Minn., decided not to change the classification on bees and honey. This was in answer to our communication asking for the same classification as the Southern Classification Committee gave Mr. Boylston, as reported on page 362. The meeting of this committee at Chicago, as mentioned on page 355, was not held, and so we had to make our representations in writing. We shall have to wait until a future meeting is held in Chicago, and then we will try to have a personal interview with the members.

We have received a copy of the patent issued to Mr. J. M. Shuck on his Invertible Hive.

Mr. Eugene Secor, Forest City, Iowa, has sent a sample of his honey to the editor of his local paper, who says it is of excellent quality and attractive appearance. His crop of honey this season amounts to 1,366 pounds from 18 colonies last spring, which have increased to 32 colonies. Surely Mr. Secor has reason to congratulate himself on his success.

Bees vs. Grapes.—Mr. M. Segars, of San Bernardino, Cal., writes us as follows about the lawsuit there, which we mentioned on pages 611 and 675:

In the case of Randall & Noyes *vs.* Bohn, the plaintiffs sued for $299 damages done by the bees of the defendant to plaintiffs' grapes on the vines and while drying. It was tried by a jury of four. We made a strong effort, but were beaten. We showed by plaintiffs' witnesses that all the damages were done by birds, coyotes, foxes, wasps and ants. They had a number of witnesses who testified that the end of a bee's tongue was *sharp*, and could puncture the skin of a sound grape. The following is from our local paper:

"The case of Randall & Noyes against Gustave Bohn, which was decided in Justice Knox's court on Oct. 27, is probably without a parallel in the history of lawsuits. The plaintiffs are raisin growers in the Highlands, seven miles northeast of this city. Adjoining their vineyard the defendant has a bee-ranch. The action was for damages which the plaintiffs claimed to have suffered in consequence of the frequent visitations of defendant's bees to their grapes. In support of their claim they introduced numerous witnesses who swore that they had in various instances witnessed with their own eyes the perforation and destruction of plaintiffs' grapes when alighted upon by the bees of the defendant. The latter, in turn, introduced evidence to show the impossibility of this condition of things. He proved by a score of witnesses that the bill of the insect is tubular and not pointed, and can, therefore, be used only as an extractor of sweets, not as a borer after them. The evidence of the eye-witnesses of the plaintiffs', however, had the weight with the jury, and they accordingly returned a verdict against the defendant for $75 and costs of suit, which amount to over $60. The plaintiffs were represented by Curtis & Otis, and the Hon. H. M. Willis looked after the interests of the defendant. A stay of proceedings has been asked for, and the case will probably be appealed. It is one of interest to bee-ranchers and raisin growers, and is attracting much attention."

A bond for appeal will be filed to-morrow' We need assistance, as this case will be made a test case. If it goes against us there will be no end of the trouble that will arise, and our bee-industry will receive a death-blow in Southern California. What encouragement can you offer us on the part of the Bee-Keepers' Union?

Every bee-keeper in California is interested in this decision, and should at once show his interest by becoming a member of the National Bee-Keepers' Union. We have advised Mr. Bohn to appeal from the decision of the Justice's Court, and assured him that the Union will stand by him, and aid in the appeal by sending money, obtaining legal advice, depositions from scientific experts as to the incapability of bees to puncture grapes, etc.

The bee-men of California are more interested in this case than any other bee-keepers can be, and yet there are hundreds in that State who have done nothing towards sustaining the pursuit of Apiculture against its enemies! They seem to be folding their arms and looking on. *Awake*, now, and come to the rescue of your representative. It may be your turn next.

Stretch ye forth the generous arm!
Help him ere it be too late!
Each right arm, a bee-man's prop!
Made to bear each other up!

The Rural Canadian has been chosen as the official organ of the Ontario Bee-Keepers' Society. Its apiarian department is said to be conducted by "an enthusiastic bee-keeper of 21 years standing"—which we are informed is the Rev. W. F. Clarke, with whose writings our readers are familiar.

Seasonable Hints, as follows, are given by Mr. C. H. Dibbern, of Milan, Ills., in the *Western Plowman* for November:

If the bees are to be wintered out-doors, all packing with chaff, leaves, etc., should be done now, during pleasant days. If they are to be wintered in the cellar, they had better be left till the first of next month, or till winter has fairly set in. They should, however, be set away before severe cold weather, as the combs will then be covered with frost, and they would then commence the winter at a disadvantage. It is always safe to calculate on a severe winter in this latitude. How many thousands of dollars have been lost by bee-keepers who expected a mild winter! Prepare for a cold winter, and no harm will be done, should it prove otherwise. How different, when we find our bees out in the January blizzards, with the weather below zero for weeks. It is certainly not pleasant, while we are in comfortable houses, sitting by our hard-coal base-burners, to think of our faithful servants, the bees, struggling in the snow drifts, with the cold and moisture for their very existence. My eighteen years' experience has taught me that a little care and attention at the right time will keep bees as comfortable, and winter them as safely as other kinds of stock.

All hives not in use should be placed in a dry place, and all sections, cases, etc., piled up for future use. If any extracting is still to be done, the combs must be warmed for a day or two, as honey is too cold and thick to run freely. The combs also would be liable to break, as they get very brittle in cold weather.

All comb honey should be marketed now, if possible. It is much easier to take care of the money, even silver dollars, than comb honey. Severe freezing will crack the combs, and cause them to leak, and spoil their beautiful appearance. Then, too, it is much easier to sell honey now, than in the late winter or spring. Stick to the home market, even if it is a cent or two below city quotations, but if you cannot dispose of all, ship to what appears the best point.

Bees as Fertilizers of Flowers.—A correspondent in an exchange makes the following remarks on the sheep-bees lawsuit:

If bees can trespass there is an end to bee-keeping, as every bee-man will be at the mercy of any surly neighbor. Apart from their merits as honey-gatherers, bees are of incalculable benefit to market gardeners, florists, etc., in fertilizing flowers. If we had bees that could reach down to the honey-cells of red clover, they would be of inestimable value to the farmer, as red clover depends for fertilization on insects, mostly bumble-bees. We are satisfied that the reason why the first crop of clover has so little seed, is because there are not enough of the bumble-bees to fertilize it so early in the season. We noticed in our meadows some heads were full of seed and others apparently equally as ripe without a grain. The bumble-bee had evidently been on the one and not on the rest. Some wise men may laugh at this, but it has been carefully *demonstrated* by Darwin, years ago, that when the bees are excluded the clover seed does not form.

Mr. C. G. Beitel's apiary was visited recently by the reporter of the Easton, Pa., *Democrat*, who has written up a lengthy article on what he there saw, which is quite complimentary to the owner. He also says:

Mr. Beitel, as all know, is practicing law of this county, but all his spare time is spent at his beautiful home on "The Hill," where he devotes his leisure moments between a hot-house filled with rare tropical plants, and his apiary, containing at present about 25 colonies of bees of various strains.

QUERIES

WITH

REPLIES by Prominent Apiarists.

Basswood Bloom.

Query, No. 152.—If after basswood had bloomed so profusely and failed entirely in honey secretion, from hot, dry weather, is it a common occurrence for it to bloom as heavy and yield honey the next year? This is important to many. —Molesworth, Ont.

The crop of one year proves nothing for the next season. The same may be said of the bloom.—DADANT & SON.

It seldom blooms heavily two years in succession, but the flow of honey is influenced by atmospheric conditions rather than by the amount of honey furnished the preceding year. —W. Z. HUTCHINSON.

From close observation I have found that when honey-bearing trees have failed to yield honey the year before, from any cause, they usually make up for the lost time.—G. W. DEMAREE.

If, as is likely the case, a failure to mature seed occurred as well, I should guess that the chances were improved for next year.—C. C. MILLER.

The failure to secrete honey would make no difference regarding the bloom the next year, for the embryo blossoms are found for the next year before the present season's blossoms opened. A full bloom of basswood comes only every other year in this locality.—G. M. DOOLITTLE.

The fact that it bloomed so full this year makes it less likely to do so next. Yet with a favorable season we may hope for a good supply of bloom.—A. J. COOK.

Basswood with us rarely fails in a sufficient bloom, but in some seasons it seems to yield more honey than in others. When white clover is yielding, the bees do not swarm upon the linden as in seasons like the past when the clover failed.—G. L. TINKER.

From the fact that I had an immense basswood yield for five years in succession, and a very light flow regularly for three years, I am not of the opinion that the blooming and secreting of one season naturally effects that of another. Not here, at least.—JAMES HEDDON.

Comb and Extracted Honey.

Query, No. 153.—How much should comb honey sell for, to make its production of equal value to the production of extracted honey at 8 cents per pound? supposing the apiarist to do "his part," and the only surplus to be white clover or linden honey, cash being paid for the honey on board the cars.—*Sub judice*, Wis.

Comb honey should sell for 12 cents per pound.—G. M. DOOLITTLE.

I should say certainly for 15 or 16 cents per pound.—A. J. COOK.

I suppose it will vary with individuals—at a rough guess I should say perhaps 16 cents.—C. C. MILLER.

It will depend much upon locality. In my locality I would say 15 cents for comb honey is no better than 8 cents for extracted, sold in bulk.—G. W. DEMAREE.

Comb honey should sell for about twice as much as extracted honey.—W. Z. HUTCHINSON.

We had rather produce extracted honey at 8 cents per pound than comb honey at 20 cents, all other things being equal. We would say this most especially in poor honey seasons.—DADANT & SON.

My experience is, that comb honey should bring about one-fourth more than extracted.—J. E. POND, JR.

If your system of working for comb honey is no better than the average, I would say 16 cents. If it is up to the best known methods I should put it at 12 cents per pound.—JAMES HEDDON.

Amount of Wax in Comb.

Query, No. 154.—How many square feet of worker-comb will it require to make one pound of wax, the comb being taken from the brood-chamber?—B.

That depends upon several things, but usually it takes about 5 square feet.—G. M. DOOLITTLE.

Probably 6 square feet, or perhaps a little more.—DADANT & SON.

It depends upon the age of the comb. Old comb does not furnish so much wax as new. Ordinarily about 5 square feet of comb will furnish a pound of wax.—W. Z. HUTCHINSON.

There is more difference in the thickness of natural comb, as found in the brood-nest, than one would naturally expect to see, and for this reason only an approximation can be made. Five square feet ought to make a pound of clean wax.—G. W. DEMAREE.

Brood-combs, according to age, vary greatly in the amount of wax that can be extracted. It takes from 5 to 8 pounds of old, black brood-comb to make a pound of wax, while new comb will make about 75 per cent.—G. L. TINKER.

Much depends upon the age of the comb. If it is not old, but nearly new, I should say about 4 square feet. I think that the combs built by Italian bees would yield more wax per square foot than that built by German bees.—JAMES HEDDON.

Two Queens in One Hive.

Query, No. 155.—Is it of common occurrence that two queens winter in the same hive?—W.

No.—C. C. MILLER.

No, though they sometimes do.—G. M. DOOLITTLE.

No.—JAMES HEDDON.

It is a very *un*common occurrence. —A. J. COOK.

No.—W. Z. HUTCHINSON.

No, but it sometimes happens.—DADANT & SON.

I have never known an instance. It is presumed of course that the querist has reference to the queens being accessible to each other. By the use of division-boards a number of queens may be wintered in the same hive.—G. L. TINKER.

No. It is quite common for two queens to work in the same hive for a time, but I have never known of their being so wintered.—J. E. POND, JR.

No; it is a very rare occurrence if it really ever occurred. Of course you mean to ask if it is common for a colony of bees to protect two queens during the winter months. I never knew such a case in all my experience. They very often refuse to protect the mother of the colony, if they become discouraged by bad weather in the spring.—G. W. DEMAREE.

Hives for Extracting Purposes.

Query, No. 156.—Is a one-story hive as good for extracting purposes as a two-story hive, provided it is long enough to give sufficient room?—Kent Co., Mich.

No.—G. L. TINKER.

Yes; only it is not as convenient to manipulate. The largest yield of extracted honey I ever obtained was from a one-story hive.—G. M. DOOLITTLE.

No.—W. Z. HUTCHINSON.

I think not. I have tried both, and I am sure that the "tiering-up" plan gives the best results.—G. W. DEMAREE.

No! It places the honey too far from the brood, and spreads the colony too much. We prefer a 1½-story hive with additional ½ stories whenever needed.—DADANT & SON.

Much will depend upon the locality. With me the two-story hive is preferable, and the labor of manipulation is much less with it also.—J. E. POND, JR.

I have twice given this query careful and comprehensive trial; first with 32 colonies, and second with 50 colonies in one-story hives. The result is, that I much prefer the tiering-up system, and I wish to have but 8 Langstroth combs in each tier. —JAMES HEDDON.

I have not been able to see any difference, though I have used them side by side for years. Others think that they do better by using two-story hives. I much prefer the latter, as they are so much more easily managed.—A. J. COOK.

Explanatory.—The figures BEFORE the names indicate the number of years that the person has kept bees. Those AFTER, show the number of colonies the writer had in the previous spring and fall, or fall and spring, as the time of the year may require.

This mark ⊙ indicates that the apiarist is located near the centre of the State named: ♂ north of the centre; ♀ south; ♁ east; ☿ west; and this ♂ northeast; ☿ northwest; ♁ southeast; and ♀ southwest of the centre of the State mentioned.

For the American Bee Journal.

To Bees in Winter Quarters.

WM. F. CLARKE.

Good-night! a long good-night, my bees!
Iv'e packed you snug and warm,
So you can stand an arctic freeze
Or hyperborean storm.

You're two feet high above the ground,
Beyond the reach of mice;
I hope you'll winter safe and sound,
And keep your quarters nice.

I'll not come scraping with a wire,
To keep the entrance free;
You're fixed—how can you but admire?—
As in a hollow tree.

Nature's inimitable plan
Well ventilates your hive,
Better than all the schemes of man
For keeping bees alive.

The season's arduous toil well done,
Your larder full of sweet,
Enjoy the calm repose you've won,
And rest your wings and feet.

If you should find the household dull
Without some babies in it,
Rear them, for you can pollen cull
In-doors, at any minute.

Take things as easy as you can,
For you are growing old,
And spend your days, like mortal man,
As a short tale that's told.

Lifetimes are measured, not by days,
But by becoming deeds;
And they deserve the highest praise,
Who leave behind them, seeds

To grow, to blossom, to bear fruit,
In months and years to come;
As generations follow suit,
And raise the busy hum

Of honest industry, among
The gardens, woods, and fields;
The toil that ripples into song,
And constant sweetness yields!

Guelph, Ont.

For the American Bee Journal.

My Report for the Season.

17—G. M. DOOLITTLE, (40—95).

After the spring opened I found that I had left, after the sales and losses, 25 good to fair colonies of bees, 15 rather weak, and 10 very weak—making 50 colonies in all. As I had further calls for bees, and having the care of my father's estate on my hands, I again reduced my number of colonies by disposing of 5 of the best colonies and 5 rather light ones, which left but 40 with which to commence the season, and 10 of these were so weak that they barely pulled through, having only a little brood in one and two combs on June 1.

When the season fairly opened so the weak ones began to pick up a little, I decided to work 27 of the best colonies for honey, and employ the remaining 13 for queen-rearing. Of the 27 colonies to be worked for honey, 25 of them were devoted to producing comb honey, and the remaining 2, being weak ones, were worked for extracted honey. From these 2 I extracted, during the forepart of the basswood bloom, an average of 39 pounds each, and in the middle of the bloom an average of 55 pounds each, or 188 pounds in all. They were then given 20 combs each, and left until the end of the harvest, when the combs were taken out all filled and sealed. These combs were then set apart for feeding any needy colonies in the fall. There was about 200 pounds of honey in them, but this amount is not counted in the final result.

The willows and hard maples bloomed about May 18, and from these the fairly good colonies obtained a good amount of honey and pollen which helped them to build up wonderfully, while the weaker colonies scarcely held their own until June 10, at which time the weather became warm and all began to be prosperous. From raspberry the bees got scarcely a living, but from Alsike and white clover plenty of honey was obtained for brood-rearing, while some of the strongest commenced work in the sections, drawing out foundation and storing a very little honey where the sections were full of comb left over from the season previous.

Basswood opened on July 14, but the bees secured very little from it until July 18, at which time work began in earnest and continued for 12 days. We had very hot, showery weather during these 12 days—it rained more or less all of the time, but it seemed to make no difference with the honey secretion, for just as soon as the rain ceased falling, the bees would pour out of the hives by the thousands, and in 10 or 15 minutes they would come home laden so heavily that they could scarcely reach the entrances of the hives.

After the 12 days came 2 days of "winding up," which ended the honey season for 1885, for since then the bees have obtained nothing except a little for brood-rearing during a few warm days about Aug. 10. For this reason no brood was reared after Aug. 20, and I shall have the privilege of knowing how all old bees will winter. The colonies appear rather light in bees at this date (Oct. 20), but I have little fears of any great disaster to them on account of old age.

After getting my honey all prepared for market, I found that I had the following as the result of the season: Comb honey, 2,972 pounds, extracted, 188 pounds, or 3,160 pounds in all, which, divided by 27, the number of colonies worked for honey, gives an average of 117 pounds per colony. If we divide the 2,972 pounds of comb honey by 25, the number of colonies producing it, we have 119 pounds per colony as a result, which shows that each colony on an average gave nearly 10 pounds of honey for each day of the 12 that they were storing from basswood, which proves what I have repeatedly said, that if our bees are in good condition to take advantage of a yield of honey, it requires but few days during such a yield to secure a good compensation to the apiarist; while if they are not in good condition, such days will pass by and the bee-keeper's hopes will be blasted. I would give more for 20 colonies of bees kept in good condition for the honey harvest at all times, than I would for 200 colonies left to take care of themselves, as many of the would-be bee-keepers leave them. In no other calling in life will care, skill and energy count for more than it will in bee-keeping.

After having all my bees prepared for winter, I find that I have 95 colonies in good condition, having all natural stores of basswood honey with plenty of pollen as food. Last fall I gave all but a few colonies stores of sugar syrup, with little if any pollen, and I found in May that all the really good colonies I had were those few that were not thus treated, so I take the hint and try all this winter on their own stores.

Borodino, ⊙ N. Y.

For the American Bee Journal.

Small Hives—Contraction.

FRANKLIN P. STILES.

A small, light hive designed to be used on the tiering-up principle, and allowing the contraction or expansion of the breeding room at the discretion of the apiarist, with the least outlay of time and labor, is the coming hive, and the hive which is coming to remain. The production of comb honey, by any method or plan, with fixtures which cannot be so manipulated, is now and always will be at a great disadvantage. This is true from the fact that the fundamental principles on which this system is based are as fixed and unchangeable even as the basal foundation of mathematics. The condition of much of the comb honey annually placed on the market, plainly and forcibly reveals the hold which certain very questionable teachings still retain among the advanced ideas of modern bee-culture.

Away back in Vol. I of the BEE JOURNAL, nearly 25 years ago, the Editor tells us that "the colony which is to prove profitable to its owner, must gradually reduce the amount of brood it has, and direct its energies chiefly to the accumulation of stores." But the advice to keep queens laying at their very best—at all times and in every hive—advice which has sounded from all sides till it seemed like an admission of ignorance or mulish propensity to doubt or question the teaching, has tended to cover up the truth and retard the adoption of methods, the value of which were faintly foreshown so long ago. We know to-day that Mr.

Wagner was right, and further, that *every* colony can thus be made "profitable to its owner." How the rearing of 3,000 bees per day in each colony during the white clover and basswood harvests can possibly be of advantage to the comb-honey producer, is a point which its advocates perhaps can best answer.

This locality is considered very poor for honey production, and where large hives are used from 10 to 25 pounds per colony of streaked, half-sealed mongrel looking honey is the amount usually obtained. For three seasons past I have practiced contracting the brood-chamber to 4 and 5 Langstroth frames, hiving all swarms on the same number, either empty, or filled with comb foundation or combs, as the time of issue indicated to be best, and following thereafter the Heddon plan as first learned from his article in the BEE JOURNAL for 1879. The difference to me between a 7-frame hive—the largest I now use—and one holding from 10 to 14 frames, has been an average of 80 pounds of comb honey per colony, each year, worth at least 3 cents more per pound, and the bees in much better condition for wintering at the close of the late harvest.

Haverhill, Mass.

Home Farm.

Piscataquis, Maine, Convention.

The Piscataquis Bee-Keepers' Association held a meeting at Sangerville, Me., on Saturday, Oct. 3, 1885. The meeting was called to order by the President, Mr. N. H. Smith. After roll-call the President delivered his address, and the remainder of the forenoon was spent in listening to reports of those present.

Mr. L. French had 33 colonies in the spring, and now has 68. He has taken from them 1,500 pounds of comb honey in sections, and 550 pounds of extracted honey. He has fed for winter 400 or 500 pounds of sugar, as he thinks that sugar is better then honey for winter stores for bees.

Mr. C. A. Howard had 14 colonies in the spring, and now has 26. He obtained 500 pounds of comb honey.

Mr. French thought that the past season had been an uncommonly good one for honey. In localities where there was not much basswood it was not considered a good year, as the clover season was very short on account of rainy weather.

Among the questions discussed at the afternoon session, were the following:

"Are the Italians better honey-producers than the black bees?"

Mr. French thought that they were not, and said that he should contend for the blacks. Mr. Brockway and Mr. Jackson thought that the Italians were superior.

"Which is the safest way of wintering, in chaff hives, on the summer stands, or in the cellar?" On this question the members were about equally divided.

The election of officers resulted as follows: President, N. H. Smith, of Guilford; Vice-Presidents, J. H. Jackson, of Sangerville, Samuel Webber, of Guilford, Wm. Crockett, of Dover, Ira Faunce, of Abbott, and J. B. Blethen, of Monson; Treasurer, C. A. Howard, of Sangerville; and Secretary, L. H. Whittier, of Guilford.

The following business committee was appointed: Lucian French, Mrs. Geo. Bennett, and M. H. Jackson. The committee on essays and addresses is composed of Mrs. Wm. Crockett, Mrs. L. H. Whittier, and Miss Maud Cross.

The time and place of holding the next meeting is to be decided by the business committee.

A vote of thanks was extended to the citizens of Sangerville for their kindness in entertaining those present, and also for the use of the Hall.

Philadelphia Press.

Poisonous Honey.

PROF. A. J. COOK.

A so-called case of death of three persons by eating honey has gained considerable notoriety of late. It occurred in Branchville, S. C., last May. It is said that several other persons who ate of the honey were affected by considerable lassitude and slight nausea which it is supposed brought relief. A very similar case transpired three or four years ago in the State of New York. The case in South Carolina was referred to me at the time of its occurrence, as was also the case in New York, and in both cases I suggested that some foreign substance, poisonous in its nature, may have been collected by the bees, or possibly the poisoning may have been due to an idiosyncrasy of the persons rather than from any specific poison in the honey.

It was suggested by some one at the time of the poisoning in South Carolina, that the poisonous honey came from yellow jessamine (*gelseminum sempervirens*). It is known that the sap of this plant has peculiar toxic qualities, and so it was suggested that the honey from the flower has the same. This view is not sustained by vegetable physiology or by experience. All secretion from animals and plants is through glandular cells. These do not eliminate sap or blood elements, but secrete nectar from elements in the sap or blood. The nectar is a new substance formed by the gland. Thus there is no reason to think that nectar from a flower will contain poison because a decoction from the plant is poisonous.

Again, bees gather from yellow jessamine every year; yet, we have never heard of poisonous honey from it before, and probably will never hear of it again. It is often stated that the mountain laurel along the Allegheny mountains secretes poisonous nectar. This is a common plant, and is freely visited by bees each year. Yet we rarely ever hear of any evil resulting from eating the honey. Thus the reports which have been made once or twice are not worthy of credence.

M. D., on page 599, writes as though the theory of the poisonous honey, indicated above, was a demonstrated fact, and suggests some ethical rules for bee-keepers. In view of the long years of selling honey, and the one or two cases of so-called poisoning, I think this advice superfluous. The advice to avoid all poisonous plants may be answered by the query—Who has demonstrated that there are any poisonous honey-plants? It is almost certain that there are none.

Agricultural College, Mich.

For the American Bee Journal.

The Western Convention.

The fourth annual meeting of the Western Bee-Keepers' Association was held in the Court House at Independence, Mo., at 10 a.m., on Oct. 15, 1885, the President, A. A. Baldwin, of Independence, occupying the chair.

The morning session was devoted to the order of business. The Secretary's report was read and adopted. The committee on transportation, appointed by the North American Bee-Keepers' Society, reported that the A. T. & S. F., U. P., Mo. P., and the H. & St. Joe railroads charged first-class rates for honey in glass, and for extracted honey in barrels, third-class rates, the same as molasses. The committee suggested that in as much as the transportation companies held monthly meetings that a committee be appointed, that had more time than the present committee, to carry the business further by being present at one of the meetings, and if possible obtain the best schedule for bee-keepers. But the appointment of such a committee was postponed for the present.

The Treasurer's report was then read and adopted. The election of officers for the ensuing year was held at this time, and resulted as follows: President, E. M. Hayhurst, of Kansas City; Vice-President, R. B. Leahy, of Higginsville; Secretary, P. Baldwin, of Independence; and Treasurer, James H. Jones, of Buckner, Mo.

The remainder of the morning session passed pleasantly in the discussion of several topics relative to bee-culture, and the President appointed a committee on subjects for the afternoon discussion. The convention then adjourned until 1:30 p.m.

AFTERNOON SESSION.

The convention was called to order by the President at the appointed time. The committee on the preparation of questions announced the following which were then discussed:

"Will it pay to feed back extracted honey in order to produce comb honey? If so, in what way can it be done the best?"

Mr. Conser: I think that it takes about 3 pounds of extracted honey to produce one of comb honey. I do not think that it would pay. I feed my bees by tipping the hive back and pouring the honey in at the entrance.

L. W. Baldwin: I feed my bees only to get unfinished sections com-

pleted, which can be done just as the honey harvest is closing, and thus not allow the bees to stop comb building. There is money in it if carried out in this manner. I feed by using feeders inside the hive.

A. A. Baldwin: I have fed extracted honey for this purpose, and I think it will pay, but I have not tested it by actual weighing and experiments.

"Which race of bees is the best for producing comb honey?"

Mr. R. B. Leahy plead for the black bees, as far as getting white, capped and finished-up comb honey for market. He thought they entered the sections more readily before swarming, and were less disposed to swarm. James H. Jones said that he would not keep bees if he had to keep the blacks. The discussion was quite animated in bringing out the different traits of the Italians and the black bees, but the convention was almost unanimously in favor of the Italians. Other races of bees were mentioned, but no one had handled them sufficiently to be very enthusiastic over them.

"What way is the best to winter bees?"

L. W. Baldwin: I winter my bees in the cellar, and I have found by the use of the scales that on an average bees consume from 10 to 12 pounds more honey per colony when wintered on the summer stands than when wintered in the cellar. This is quite an item in wintering a large apiary.

A. A. Baldwin: I think that outdoor wintering brings the bees through with more vigor, and they usually swarm a week or ten days sooner than those wintered in the cellar. I feel confident that bees packed with chaff will consume at least 5 pounds less honey than if not so packed.

The President said that chaff packing saved stores. The general opinion was that bees wintered on the summer stands should be crowded upon as few combs as they would occupy, have 20 or 25 pounds of stores, and be well packed.

"Does it pay to use reversible frames and section-boxes?"

No one present had used them much, excepting Mr. Conser who had used them, and was well satisfied with them.

"How far apart should large apiaries be located in a good honey-yielding country?"

This question brought out statements of long flights of bees in search of honey, but the opinion most generally accepted was, that if the apiaries were placed not less than 4 miles apart, there would be no conflictions.

The convention then adjourned until 9 a.m. the next day.

SECOND DAY.

The convention met at 9:30 a.m. The President being late, Vice-President R. B. Leahy occupied the chair. Mr. L. W. Baldwin was selected to prepare the table of statistics, which is as follows:

NAMES.	Colonies Fall, 1884.	Colonies Spring, 1885	Comb Honey.	Extracted Honey.	Beeswax.
L. W. Baldwin†	190	160	6500	500	....
Jas. H. Jones†	150	117	5190	535	....
W. B. Thorne	43	18	....	400	....
A. A. Baldwin	133	93	5000	....	....
A. A. Mitchell	54	30	1000	....	....
Jno. Conser	54	33	1608	600	10
R. B. Leahy	71	60	200	3000	16
H. D. Libby	12	3	....	....	....
J. S. Adkins	60	52	1000	500	25
Jas. A. Nelson	62	60	700	800	15
U. Adams	12	10	600	....	....
S. W. Salisbury	105	66	500	3200	30
N. W. Putnam†	10	10	200	....	....
C. M. Crandall	90	61	2300	100	50
Geo. Hiest	4	1	....	....	....
C. K. Ormsby	30	20	600	100	....
P. Baldwin	158	92	3500	50	50
E.M.Hayhurst*	130	125	159	....	....
F. J. Farr	160	127	4500	500	....
Total.....	1528	1138	33557	10285	196

* Reared queens instead of producing honey.

† Wintered bees in cellars. All others wintered on the summer stands.

There being no business to transact, the discussion of questions was resumed as follows:

"Does it pay to use wired frames?"

Mr. Conser: I have used them. In shipping bees I think they are of great benefit, but in handling combs at the apiary they are not of so much use.

L. W. Baldwin: I have had considerable experience in handling and moving bees for several years, and in all this time I have not had a half-dozen combs injured, even if not transported on a spring-wagon. As far as I have observed, I cannot see any use for them.

R. B. Leahy: If I were going to work my apiary for comb honey, using frames with short top-bars, I should not have them wired. In handling I would rather have them wired for manipulating lower stories.

"How can we remedy the turning out of the starters in sections as the bees work them?"

This question called out the experience of several leading bee-keepers this season, and it was generally thought that the cause was the slow flow of honey, cool weather, and colonies being light in bees. Some advocated using smaller starters, others turning the sections around, while others thought that crowding the bees would remedy it.

"In what direction is it best to have the hives face in winter?"

Mr. Thorne: I would have them face the same way in summer and in winter.

S. W. Salisbury: My hives have loose bottom-boards, and I raise the hives in summer to prevent the bees from lying out, and let them down on the bottom-board in winter. I think that the hives should face toward the south.

"How should young colonies be handled to secure the largest amount of honey?"

L. W. Baldwin: I make a nucleus from the swarm and put the rest in the parent colony.

P. Baldwin: A good way is to put the swarm on 5 or 6 frames and compel them to go into the sections at once.

"Is there any successful way of introducing queens?"

Mr. E. M. Hayhurst having stated that he could introduce 500 queens without the loss of one, was asked to give his method, which he did as follows: After making the colony queenless, I have a young queen caged in a Peet cage, and I place the cage directly over the cluster of bees and leave it there till I see that the bees are perfectly reconciled to the queen; this will require two, three, and sometimes several days. I then remove the queen-cells and place the cage on an outside comb over some honey, remove the slide and rim out a plug through the comb, letting the plug remain in place and leave it undisturbed for a week. If the bees are disturbed before the queen begins to lay, she will become frightened, will run about and pipe, and the bees will chase and kill her. The important point is to have the bees perfectly reconciled, every queen-cell out, and no robbing.

L. W. Baldwin: I have found that it is very difficult to introduce queens into colonies that have long been queenless. It is almost an impossibility with me.

The convention then adjourned till the afternoon.

AFTERNOON SESSION.

The convention was called to order at 1:30 p.m., President Hayhurst presiding. The following question was then asked:

"What is the most simple, cheap and expeditious way for the practical bee-keeper to change his stock by re-queening?"

L. W. Baldwin: I put in queen-cells after the colony has swarmed, and again immediately after the honey-harvest, by taking the queen away and the next day giving the colony a queen-cell.

A. A. Baldwin: I had just as soon as not have colonies queenless for 20 days after the honey harvest, and would take this time to give them a queen.

S. W. Salisbury: I re-queen colonies with swarming queen-cells.

The question, "Is it advisable to clip the queen's wing?" brought out a lively discussion.

James H. Jones: I prefer to have my queens' wings clipped.

S. W. Salisbury: I have tried clipping the queens' wings, and I think that it induces the bees to supersede their queen immediately. I also have great trouble in finding a queen whose wing is clipped, when swarming.

L. W. Baldwin: The ease and facility in handling swarms is much in favor of queens whose wings are clipped, and I like the practice.

A. A. Baldwin: I do not think that clipping the queen's wing causes the bees to supersede her. The past year, with an apiary of 135 colonies, only two queens were superseded, and they through natural causes.

The majority of those present favored the practice.

James D. Meador was appointed to further prosecute the business with the railroad companies, of endeavoring to get a better scheduling of apiarian products.

The convention adjourned to meet in Kansas City, Mo., next spring, at the call of the executive committee.

P. BALDWIN, *Sec.*

For the American Bee Journal.

Bees Biting Flowers.

C. M. WEED.

It has for many years been well known that flowers and their insect visitors sustain a relation to each other by which both are benefited; the former manufacturing in their wonderful nectar-glands, a sweet substance which is given the latter that they may in going from blossom to blossom carry the fertilizing pollen which, acting on the sensitive pistils, fertilizes the young seeds so that they mature in perfect condition.

Pre-eminent among the insects that flowers thus lay themselves out to attract, are the bees, and as one studies the flowers that bees more particularly visit, he can easily imagine some of them to say, in spirit if not in words, "Here, O bee! I have stored deep in my bosom some sweet nectar fit for the gods, which you would much relish, and you may have it if you will carry some of these fine pollen-grains to my neighbor yonder who will give you some nectar to take home, and some pollen to carry to the next one of our kind that you visit." Whether or not the proposition is understood, we all know that it is usually agreed to, though it is easy to see that many plants, as if afraid to trust the bees to fulfil their part of the agreement, have so arranged the approach to their nectar-glands as to compel them to carry off the pollen whether they will or not, and if any of the young readers of the BEE JOURNAL will examine the blossoms of some of our honey-plants, they will find many wonderful adaptations of the parts of the flower, arranged for this very purpose.

But some kinds of bees, especially the big bumble-bees, with which we are all so familiar, instead of entering at the door, which the flower has so kindly provided, as any decent, well-bred visitors would, have learned that they can often get at the nectar-glands in a quicker way, by simply using their stout jaws to bite through the thin flower leaves, as we may properly call the calyx and corolla, and boldly sipping the forbidden sweet. And it is a fact noticed by naturalists, that when a bumble-bee once learns this method of plundering the poor flowers that have taken such pains to dress up in gay colors expressly to attract his attention, he seems to take the same enjoyment out of it that a lot of school-boys do in pilfering a neighbor's orchard, rather than taking fruit from their father's farms in the orthodox fashion; for after Sir Bombus once learns the delights of stolen sweets, he seldom goes back to the old way of entering the corolla-tubes and soiling his armor with the great masses of pollen-grains.

A very good illustration of this kind of plundering may be seen any day in early summer in most of our Middle and Western States, by any one who will examine the flower-spikes of the common yellow lousewort (*Pedicularis Canadense*). Usually over one-half of the blossoms have had a great hole taken out of the calyx by bumble-bees, and if one will watch he will find that many honey-bees have learned that the honey is more easily obtained through the holes thus made by their larger cousins than through the long corolla-tubes, and act accordingly.

But I believe it is very seldom that the honey-bees themselves thus bite flowers in preference to entering them as nature intended, though a few well authenticated instances are on record. One of the most trustworthy of these was related by Thomas Meehan, the eminent Philadelphia botanist and florist, at a meeting of the Philadelphia Academy of Sciences. He stated: "Late one autumn, long after most other flowers were gone, and with no humble-bees about, scarlet sages (*Salvia splendens*), for nearly a week together, received the sole attention of the honey-bees, which worked among the flowers in great numbers, in all cases boring the corollas near the base from the outside."

This is an interesting subject, and many readers of the BEE JOURNAL could doubtless shed some light upon it by reporting observations similar to the above, in which bees have been known to thus bore the corollas.

Champaign, Ills.

For the American Bee Journal.

Winter Temperature & Ventilation.

WM. F. CLARKE.

I think that although Mr. Heddon and myself have come by different routes of thought and investigation, we have reached pretty much the same point. I accept his "quiescence" as the equivalent of my "hibernation." His letter on page 684 hits the nail squarely on the head, and suits me exactly. On his part he has admitted (see his last winter's report) that if the temperature is right, bees will not be apt to eat pollen to hurt them, even if they can get at it. So I say, get the temperature right, and never mind the pollen. The bees will fix the temperature, if they are given due protection and ventilation. I am a little afraid from the tone of some of Mr. H's late articles, that he is going to stint the ventilation. I do not think that bees want a great deal of ventilation, though I believe they need more in winter than in summer, but what they have must be *uniform* and *infallibly safe from interruption or stoppage*. A few hours' derangement or obstruction of the air-supply will create uneasiness, over-eating, diarrhea. An excess of cold will have practically the same effect, causing exercise to get up warmth, overfeeding to supply waste of tissue, and diarrhea. Of course, the cold may be so intense as to cause freezing to death without the preliminary process of exercise, over-eating, and diarrhea, as was the case with those colonies of Mr. Heddon's that succumbed to cold "pure and simple" last winter.

To guard against these evils, is the object of my "hibernating hive-stand," which has already been described in the BEE JOURNAL. I want to temper the air-supply, and yet maintain it in uniformity, while not exposing the hive to incursions of mice, etc. Two seasons' trial has satisfied me that it is better to raise hives 18 inches or 2 feet from the ground. It is far more convenient for handling bees during the working season, baffles the toads, and so far as I can see, no bees are lost coming home heavily-laden and falling in the grass. I have watched mine pretty closely, and I am sure that the loss from bees missing the alighting-board when "weary and heavy-laden," is *nil*.

The only objection that I can think of to raising the hives, is exposure to winds, and liability to be blown over, covers blown off, etc. But every apiary should be protected with a high board-fence; and as for the covers, if any one is like Mr. A. I. Root, and does not like the big stones (I do not like them), it is the simplest thing in the world to use a couple of hooks. To fasten and unfasten them is but the work of a moment, and less trouble than handling a big stone. Let me here say, that, after a couple of season's trial of the flat, single-board covers, I have discarded all others. Made of good lumber, without cracks or knots, and well-cleated, so as not to warp, they "fill the bill" completely. Why do I lay so much stress on a box-stand? Because I cannot get nature's plan of bottom and vertical ventilation without considerable space under the hive.

The coming winter's experimenting, will, I believe, settle the problem. I want to find out the *quantum suff.* of protection and air-supply that will make my bees "*quiesce*" (Heddon) or "*hibernate*" (Clarke). We want to find out the temperature at which bees will be so quiet and contented that they will not eat pollen if it is in the hive, nor crave it if there is none there.

Mr. Heddon objected some time ago that my box-stand was not "practical." I think it is, and I intend to bring a model to the Detroit meeting, which, I hope, will convince him also that it is. What I claim for it is, that it is less expensive and less troublesome than any system of indoor wintering that involves carrying bees into and out of repositories of any kind. Moreover, that it secures the "quiescent" or "hibernating"

condition more surely than any other plan. Mr. Allen Pringle has recently defined what we want to bring about, very happily, as follows: "The quiescent condition bees assume portions of the time *in healthy winter quarters*. (The italics are mine.) Given the "healthy winter quarters," with plenty of stores in them, and the work is done. Then we may cry "Eureka!" Nothing will remain for us and our bees to do, but "rest and be thankful."

Guelph, Ont.

For the American Bee Journal.

The Sheep-Bees Lawsuit.

C. A. HATCH.

The "complaint" in the above suit reads as follows:

STATE OF WISCONSIN—RICHLAND COUNTY.

A. J. POWERS, *Plaintiff*, vs. S. I. FREEBORN, *Defendant*. } *Circuit Court.*

The complaint of the above-named plaintiff, A. J. Powers, by Brooks & Dutcher, his attorneys, respectfully shows to this Court and for cause of action alleges—

That he is the owner in fee and in the sole possession and occupancy of and ever has been since the first day of May, 1881, of the south ½ of the southwest ¼, and all that portion of the northwest ¼ of the southwest of section 9, that lies east of Willow Creek, and the southeast ¼ of the southeast ¼ of section 3, all of which land is in Township No. 10, north of Range 2 east, in the County of Richland, State of Wisconsin. And the plaintiff so being the owner and in the possession of said land has, during all that time owned and kept a flock of blooded sheep thereon of an average of 125 in number, and kept said sheep for the purpose of sale at any and all times, and said sheep being of the value of $2,500; and during all that time has pastured said flock of sheep upon said lands above described.

That the grass which was grown upon the said lands upon which said sheep were pastured during the summer and autumn months of each year was almost wholly white clover, and during the greater portion of said times was covered with blossoms; and that the plaintiff was compelled to pasture said sheep upon said lands, it being the only suitable pasture in which he could keep them during the summer and autumn months of each of said years to-wit: The summers of 1881, 1882, 1883 and 1884.

That during all the time the plaintiff so owned and occupied said land and so pastured his said sheep thereon as above set forth, the said defendant upon lands adjoining and adjacent thereto kept several colonies of bees numbering in all from 200 to 300.

The plaintiff further alleges that by reason of the defendant keeping all of said bees so near said premises of the said plaintiff they entered in such vast numbers upon the said premises of said plaintiff, and his said pasture where said sheep were kept, that said sheep were driven therefrom thereby, and were forced to leave their feed and go into the barn or elsewhere to avoid said bees, and there remain until said bees left the pasture for the day; and the said sheep were thus deprived of their proper food and became poor, unhealthy, and unfit for market.

The plaintiff further alleges that by reason of said sheep being driven from their food as before stated, by said bees, became poor, weak and feeble, and that the plaintiff was put to great trouble and expense in taking care of said sheep in furnishing extra feed and grain to keep them alive, and that the said sheep became so weak and feeble by reason thereof that many of them could not be recruited, and died during the winter to-wit: In the winter of 1882 and 1883, 35 sheep died; in the winter of 1883 and 1884, 7 sheep died.

That said sheep in a good healthy condition were worth at least $12 per head.

The plaintiff further alleges that said defendant wrongfully and unlawfully so kept said bees, and knowingly and unlawfully suffered bees to go upon the premises of the plaintiff, as aforesaid, and to drive said sheep from their food and pasture almost daily during the summer and fall months of said years of 1881, 1882, 1883 and 1884; and that the defendant well knew all the facts and circumstances connected therewith.

The plaintiff further alleges that by reason of the wrongful acts of the defendant above set forth, and by reason of the said bees driving said sheep from their said pasture during all the said time, and the trespass of said bees thereon, to-wit: upon the said lands of said plaintiff and the wrongs and injuries above set forth and occasioned thereby, that he has been injured and damaged to the amount and value of $500.

Wherefore the plaintiff demands the judgment of the court against the defendant for the said sum of $500 damages besides his costs and disbursements in this action.

BROOKS & DUTCHER,
Plaintiff's Attorneys.

Opinion of the Court—Judge Clementson.

The Plaintiff, by attorneys, claimed that bees may trespass as well as other animals; that the bees of defendant came upon the premises of plaintiff and drove the sheep from the pasture; that it became a nuisance that should be abated as other nuisances are, etc.

The Court—Is your claim for literal trespass or for a nuisance?

Plaintiff—It is a trespass that becomes a nuisance because of the vast numbers of bees kept.

The Court—Have you any authority upon this matter?

Plaintiff—We have none.

The Court—If you proceed upon the theory of nuisance, will you please tell where the nuisance exists—will you locate it?

Plaintiff—The bees were kept upon defendant's premises and by him upon a farm joining plaintiff's premises, and they became a nuisance by coming upon the plaintiff's premises in vast numbers. This nuisance should be abated as a bad stench should.

The Court—The stench is essentially bad, and may become a nuisance by being blown by the wind—it depends where it is located. Bees are recognized as useful. If you proceed upon this theory it will establish a new line of liability, and it is advisable at the outset to find its exact course.

Plaintiff—It is the maxim of law that one person shall keep his own property so it shall not injure others. We claim that the defendant kept bees that injured the plaintiff's sheep—drove them from the pasture so they became weak and feeble, many of them dying during the following winter.

The Court—You do not allege that the bees stung the sheep, nor do you allege that they took anything from the clover of value to the sheep—you simply assert that the sheep were driven from the pasture by the bees. We must understand whether you proceed upon the theory of trespass or of nuisance, so the nature of the damages may be determined.

Plaintiff—The theory of the prosecution is that of trespass. The presence of the bees upon the plaintiff's premises was voluntary. The nuisance lay in their vast numbers. By the new methods of bee-culture the multitude kept in one place vastly exceeds those formerly kept. The bees are moved from place to place in quest of pasturage.

The Court—A man may pass over his neighbor's farm a dozen times and he does not bring suit for trespass. Now if a man has a hive of bees and it is trespass for them to go upon others' property, he would be liable to suit for trespass wherever a bee went. *It would fill the courts!* Every bee-keeper would have a "peck of trouble!" It would seem that if the sheep were driven from the pasture in the summer they might have been fed up in the fall to recruit them for the winter. I can see that upon your theory even flies would in certain cases become a nuisance for which a man might be prosecuted. Suppose the owner of a cane or sugar mill should locate it near a neighbor's property, and vast swarms of flies came to feed on the sweets, they might be a nuisance to stock in an adjoining field. If we proceed, it would be difficult to determine the extent of damages.

This case involves new points in law upon which there are no rulings of the Supreme Court. We have no law upon which to instruct a jury. I have made some inquiries to satisfy myself. As we must look to the Supreme Court for rules of law, it is better that this case be sent there at once. If the defense objects to any evidence under this complaint, the objection must be sustained, and the plaintiff may appeal from the ruling thereon.

The defendant objected as suggested, and the objection was sustained by the Court, and the plaintiff excepted.

Richland Centre, Wis., Oct. 31.

For the American Bee Journal.

Small Hives vs. Large Hives.

8—W. Z. HUTCHINSON, (70—40).

I notice that I have not been sufficiently explicit in my statements. In my first paragraph, on page 631, I intended to carry along, to its end, the meaning, or influence, of its central idea, viz: Success depends upon producing the largest amount of honey with the least expenditure of capital and labor. My meaning was that this idea should be kept in view, and if we did secure the greatest amount of honey with the least expenditure of capital and labor, it was of no importance whether the honey was stored in 10 or in 100 hives. My meaning is, that we should not strive to see how much honey we can secure per hive, *unless* by so doing we are securing the greatest amount of honey with the least labor and capital. To illustrate: One man with a few hives and many manipulations (labor) may secure 1,000 pounds of honey; another man with twice as many hives, and with less labor, may secure only the same amount of honey, and yet make the most profit. I hope I may be excused for dwelling upon this point, for it is the one grand principle underlying success, not only in bee-keeping, but in all industries.

Mr. Dadant's computations, on page 662, in regard to the number of bees per comb in large and small hives, before swarming and after, etc., are interesting, but he has evidently overlooked the fact that, when bees swarm, they are not confined to the 8 or 12 combs (the brood-nest), but there is a surplus department, of equal or greater capacity than the brood-nest, which is crowded with bees. After a swarm has issued, this surplus apartment is almost abandoned. According to Mr. Dadant's figures, an 8-frame hive may contain 50,000 bees, and a 12-frame hive 75,000 bees. He divides these numbers by the number of combs per hive, and says there must be about 6,500 bees per comb. He certainly must have made these calculations to apply before the giving of surplus room. I can think of no other explanation.

With me, and I believe it is a general rule, bees do not usually swarm until they have stored considerable honey in the surplus apartments. When the 8 combs are crowded with bees, and honey is to be gathered, I put on one case of sections. The bees take possession. Bees are hatching in excess of the mortality, and soon not only the brood-nest, but the case of sections, is crowded; now I put on another case of sections, and the bees overflow into this. Soon this case becomes crowded, and another case is added. About the time that the sections in the case first given are finished, and the sections that were last given are one-third finished, the bees swarm. Now, this much I *know:* A swarm of bees that comes from an 8-frame Langstroth hive, and from three crowded cases of sections above it, cannot be hived upon only 5 combs and not crowd more than 166 bees per comb into the sections. I think that even Mr. Dadant will admit this. If the bees swarm earlier in the season, before commencing work in the surplus apartment, the swarms will, of course, be smaller, and there will be all the more need for contraction in order that we may secure all the white honey in the surplus apartment instead of the brood-nest.

It is true that when our bees swarm we hive them upon the combs, and then reduce the old hive to the same capacity, which enlarges our hive-capacity two combs; hence Mr. Dadant says it should be called the "enlarging method." It is contracted, is it not, so far as the egg-producing power is concerned? We now have *two* queens.

It is true that we can house our bees at less expense in large than in small hives, and it is equally true that implements and fixtures that cost the most are often the most profitable. But let us see how much greater our outlay for hives really is. Mr. C. P. Dadant estimates the cost of a Heddon hive at $2.50, and the hive which he uses, at 50 cents more. (His estimates in regard to foundation have no bearing upon the subject under discussion, as the cost for foundation is the same whether used in a large or a small hive.) He uses 8 hives where we use 12, ours costing $2.50 and his $3.00 each, with interest at 10 per cent., and the hives are replaced by new ones every 15 years, and 12 hives cost us each year $1.00 more than his 8 cost him—an expense of 8⅓ cents per hive, each year. Now, to save this trifling expense, we must incur the risk of having from 5 to 20 pounds of the choicest honey stored in the brood-nest. My comb honey, this year, netted me 16 cents per pound. Had I used hives so large that the queen did not occupy the two outside combs, my *surplus* crop would have been reduced at least 14 pounds per hive. Had this 14 pounds been needed for winter stores, it could have been replaced with sugar at a profit of $1.26.

If I understand this subject aright, it is something like this: Mr. Dadant considers it of more importance that the queen shall have an abundance of room in which to lay eggs, than that all of the combs be filled with brood; while I wish every comb to be filled solid with brood, even if the queen does have to occasionally indulge in a "play spell."

Mr. C. P. Dadant places great stress upon the advantages to be gained by allowing each queen to lay to her utmost capacity, intimating that the number of bees will be increased thereby. It will increase the number per hive, but not per *apiary*. Ninety-six combs filled with eggs by 8 queens will produce no more bees than will 96 combs filled by 12 queens, and the chances that they *will* be filled are reduced to a certainty when 12 queens are employed.

I think that the yield of honey depends upon the area of the field (and its character), and the number of *bees* employed; *not* upon the "number of *colonies*," as Mr. Dadant puts it. That is just where we differ. He wishes a large number of bees per *colony*, while I am not so particular about that as I am about a large number per *comb*.

Rogersville, ♂ Mich.

For the American Bee Journal.

Wabash Co., Ind., Convention.

The fourth semi-annual meeting of the Wabash County Bee-Keepers' Association was held in the G. A. R. Hall at North Manchester, Ind., on Oct. 10, 1885, at 10 a.m., with President Hess in the chair. The minutes of the previous meeting were read and approved.

An essay was read by Aaron Singer, on "How to keep bees for profit."

GENERAL DISCUSSION.

Mr. Miller uses glass in section-cases, but he will discard it hereafter.

Mr. Cripe uses glass, but would use it no more.

Mr. Maurer: I am using glass, but I have to keep it darkened to get the bees to work in the sections.

Mr. Gerlack said that he had very little success in dividing colonies, and prefers natural swarming.

Mr. Zimmerman said that the production of extracted honey pays better than comb honey.

Mr. Miller prefers comb honey because it is nicer to handle, and is more marketable.

Mr. Singer asked: "Does comb honey at 20 cents a pound pay? or, taking that for a basis, at what price can extracted honey be produced to be as profitable?"

Mr. Cook said that more honey can be produced by extracting, and if a market could be found for it at 15 cents per pound, it would pay as well as comb honey at 20 cents.

Mr. Miller: Extracted honey granulates in cold weather, and that injures the sale of it.

Mr. Singer: I sell comb honey at 20 cents and extracted at 12½ cents per pound. I peddle it and sell more of the extracted.

Mr. Comstock said that there is very little difference in the profit of comb honey at 20 cents per pound and extracted at 12½ cents.

President Hess said in regard to keeping up the price of honey, that some farmers and a few bee-keepers make a great mistake by selling comb honey at a less price than can be afforded, and that bee-keepers should stand unitedly on the price, and work for each others' interest.

In several townships represented, 70 per cent. of all the bees died last winter.

AFTERNOON SESSION.

An essay was read by Henry Cripe, on "Preparing bees for winter," which was discussed as follows:

Mr. Singer asked: "How do bees get air in the winter?"

All the air they get is through the space in front of the hive.

Mr. Comstock packed his bees in chaff and lost none.

Mr. Miller packed snow around his colonies, and none froze, but some died of starvation.

Mr. Cook packed his bees in chaff, with good success, the main point being to keep them dry with plenty of stores.

On contraction some advocated 4, 6, and 8 frames, and division-boards. The Secretary prefers 4 or 5 frames and 20 pounds of honey per hive.

Mr. Singer did not intend to contract his hives any, and packed some of his bees in chaff and some in sawdust.

Mr. Cook advocated upward ventilation.

"What is the best way to avoid moisture in the hives in winter, and is it a cause of mortality?"

It was generally admitted that it causes mortality, and the best way to prevent it is, to so prepare the hives as to absorb all the moisture possible.

"Should bees breed late? If so, how late?"

It was generally conceded that bees hatched in September were the best for wintering successfully, for old bees or too young bees did not winter well.

"What way is the best to Italianize colonies in the spring?"

Mr. Cook takes eggs and brood from his best Italian bees and lets them rear a queen, or buys one.

Mr. Singer intends to rear a colony of drones, and take brood from the best Italian colony, and remove it to a place two miles distant, leaving them there until the queens are mated, and then take them home and introduce them. He said that it did not pay to rear a few queens in a small way, and that it is better where only a few are wanted to buy them of some reliable dealer.

SMALL HIVES VS. LARGE HIVES.

Mr. Miller: I am using 8 and 10 frame hives, and get the best results with the 10 frame ones.

Mr. Cripe prefers the 8-frame hive to anything larger, and if he were to change he would use something smaller. He said that the heat can be kept up better in a small than in a small hive.

Mr. Lower has had good success with any of the hives he is using.

Mr. Singer: My best results are from 10-frame hives, but I am going to change to an 8-frame, as I think they are more easily manipulated.

DEEP VS. SHALLOW FRAMES.

Mr. Comstock: All say that shallow Langstroth frames are preferable on account of the brood being near the top-bar, but I find the same is the case with deeper frames, and I like the deep ones the best.

Mr. Cripe prefers the shallow frames for summer and the deep ones for winter.

Mr. Singer would prefer frames a little deeper than the Langstroth, but not so deep as some for general purposes. A medium frame would suit him best.

"What is the best way to feed bees?"

President: I feed my bees by nailing scantling together and setting the hive over them late in the evening. The food is taken up at night, and so I have no trouble from robber bees.

Thirteen members reported 66 colonies, spring count, 209 colonies, fall count, and 4,931 pounds of honey as the crop of the past season.

A vote of thanks was tendered the various papers for publishing notices of the convention, and also to the G. A. R. Post for the use of their Hall.

The convention then adjourned to meet at Wabash, Ind., on the second Saturday in April, 1886.

J. J. MARTIN, *Sec.*

For the American Bee Journal.

My Management—Extracting.

W. H. STEWART.

In continuation of my management of an apiary (see page 601): If I think that a part or all of the combs in the super are ready for extracting, I pry the top-bars loose, and lift out the one that by its appearance is best calculated to be taken up without scraping the other combs, or crushing the bees. I give it a careful shake over the super, when most of the adhering bees will be dislodged, and then with a large feather I brush off the remaining bees, also letting them fall into the super. This comb and all others that are capped over about one-third or more, I hang in the comb-basket, and fill the super again with empty combs from the basket. I repeat this operation until the basket is full of combs of honey. I now leave the fuel basket at the hive which I next intend to operate upon, and wheel the load of honey into the extracting room. Here I have a deep dish (a coffee-pot is good) full of hot water in which the honey-knife is dipped to clear off the wax and honey that sometimes accumulates on its edge. On a table I have a dish over which I hold the combs while the sealed part is being uncapped. A boy can do this uncapping and then hand the combs to the one doing the extracting. When the honey is out of the combs, I return them to the comb-basket to be taken to the hives and exchanged for full ones.

In the honey-room I have one or more barrels in which to store the honey. If one has not hives and combs enough to practice tiering-up, and let the honey become well cured before it is taken from the bees, it is better to have a number of barrels with only one head in each, and when they are filled, tie a cloth over the top and let the honey cure and thicken by evaporation.

As I take the honey from the extractor, I pour it through a strainer made of cheese-cloth that I tie over the evaporating barrel. When the barrel is full, I remove the strainer and tie over the barrel a piece of muslin heavy enough to exclude all dust. When it has stood two weeks, I remove the cloth and skim off a white scum (pollen dust, I presume) that is found on the surface, and then the honey is ready to barrel up for market.

Sometimes I extract three times during basswood honey-flow. In this locality the basswood flow generally stops abruptly, and as there is but little honey that the bees can get for a few days, nearly all of them remain at home, and are very cross and more difficult to handle, and, as a rule, it is better to discontinue the work of extracting until buckwheat or other plants begin to give the bees a little honey; then they can easily be quieted with smoke while the work of extracting is completed. The finishing up of this work of extracting is a most important item.

We have now from one to three supers on the hive of each old colony, and all full of surplus combs. If these combs are properly handled they will be found in good condition when wanted next season; but if not properly managed, they will be likely to give much trouble, and most likely the majority of them be destroyed by the moths, in the end.

When extracting this last run of basswood, I take away all supers as fast as I get the combs out, and when all are off, I place the cap on the brood-chamber, confining the bees to the brood-combs.

When all the surplus combs have been run through the extractor, I pile them up in the extracting room, until about half an hour before sundown, when I put them out in the open air, so that the bees can take away the honey; then hang them in the supers again about two inches apart, and place the supers 4 or 5 tiers deep, with the bottom-boards under and the covers on them. They may remain out-of-doors or in a store room where there is no fire, and the moths will not destroy them. It may be well to set the combs out more than one evening, but never let them remain out over night. Wind or storm might destroy them if left out, or the bees would be apt to get crazy over them in the morning; and if they thus become aroused in the early part of the day, robbing might ensue. Never place the combs where they would be exposed to the hot sun, or they may be melted down.

Orion, ♀ Wis.

Convention in Italy.

The Central Apicultural Society of Italy held a large and enthusiastic meeting at Milan, commencing Sept. 24, when Dr. Angelo Dubini took the chair in the absence of Pres. Barbo. Besides a number of Italian bee-keepers, Mr. E. Bertrand, editor of the Swiss bee-paper, and Mr. T. W. Cowan, editor of the British *Bee Journal*, were present and took part in the deliberations. There was a large exhibition of bee-keepers supplies, and honey, as well as articles in which honey is used.

Local Convention Directory.

1885.	*Time and place of Meeting.*
Nov. 12.—	Central Michigan, at Lansing, Mich. E. N. Wood, Sec., N. Lansing, Mich.
Dec. 8—10.—	Michigan State, at Detroit, Mich. H. D. Cutting, Sec., Clinton, Mich.
Dec. 8—10.—	North American, at Detroit, Mich. W. Z. Hutchinson, Sec., Rogersville, Mich.
Dec. 8-10.—	Northwestern, at Detroit, Mich. W. Z. Hutchinson, Sec., Rogersville, Mich.
Dec. 11.—	Northeastern Kan., at Hiawatha, Kan. L. C. Clark, Sec., Granada, Kan.
1886.	
Apr. 27.—	Des Moines County, at Burlington, Iowa. Jno. Nau, Sec., Middletown, Iowa.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Nearly Ready for Winter.—G. H. Knickerbocker, Pine Plains, N. Y., on Oct. 30, 1885, says:

We have been building this summer and fall, and so I have not been able to give my bees the attention that they needed, but I now have all except 4 or 5 colonies prepared for winter. I have in all 60 colonies. I shall winter part of my bees in the cellar and a part of them on the summer stands.

No Fall Honey.—L. Dawson, Champaign, Ills., on Nov. 2, 1885, writes:

I started last spring with 15 colonies, increased them to 40 during the season, and obtained 800 pounds of comb honey from white clover. By July 15 the honey harvest was over, and the bees gathered no fall honey. My colonies are strong in bees, and I believe they have plenty of honey to keep them during the winter.

Late Drones.—A. H. Wadham, West Torrington, Conn., on Oct. 26, 1885, writes:

Last March I obtained 2 colonies of black bees in box-hives, one of them being a swarm that issued during the first week in August, 1884, and yet as late as it was they stored honey enough to winter on the summer stand without protection, until I got them, when I fed them a little syrup. The stronger colony (according to the advice of those who had formerly kept bees in that way) I put inside of a large hive 2½x2½ feet and 4 feet 2 inches high, the back side of which was movable so that I set the old hive right in and closed them up. My object in so doing was to avoid swarming, and I was successful as far as swarms were concerned. They did not swarm, and compared with the other colony which did swarm, they did very well. About Oct. 1, I opened the large hive and took out 60 pounds of very fine clover and basswood honey, and they seemed to be very strong in bees. But what induced me to write the foregoing was the drones of the colony. The air was full of them two or three times during July, and for 5 or 6 weeks I have found the colony driving out drones on every Sunday morning (this being the only day that I am at home during bee-hours). Why is it that the drones are so thick with that colony at this late day, and the other colony not having had a drone around for two months or more? Since writing the above I have seen plenty of drones around, although there was a frost last night. I read the BEE JOURNAL with much interest, and though much is now known about the "busy bee" and its habits, yet I think apiculture is only in its infancy.

[Many of our colonies do not present a drone during the entire summer, because they have no drone comb in which to hatch any. That *may* be the case with your smallest colony. Your large hive contains much drone comb and hoards of drones. It requires considerable time for the workers to drive out and kill so many, especially in so large a hive; but from the fact that they are now prosecuting that work, there is no reason to think that they are not queenless.—JAMES HEDDON.]

Building-up Colonies—Swarming.—J. T. B. asks the following question:

If I should use Mr. Doolittle's plan of building-up colonies in the spring, and should have all of my hives full of brood by May 1, with an average season at what time may I look for swarming to begin, as a rule?

[My bees swarm, as a rule, about 2 weeks after the hive is full of brood. In this locality from June 1 to June 15 is as soon as this (the hive full of brood) can be accomplished. The flow of honey has much to do with the swarming, however.—G. M. DOOLITTLE.]

Any person not a subscriber, receiving a copy of this paper, will please consider it an invitation to become a subscriber to it.

The Time for Reading has now come. The long winter evenings can be utilized by reading up bee-literature. We have all the newest bee-books and can fill all orders on the day they are received.

When Renewing your subscription please try to get your neighbor who keeps bees to join with you in taking the BEE JOURNAL. It is now *so cheap* that no one can afford to do without it.

☞ The Central Michigan Bee-Keepers' Association will meet in the Pioneers' Rooms in the State Capitol, at Lansing, Mich., at 9 a. m., on Nov. 12, 1885. All who have bees or are interested in bee-culture, are invited to attend. E. N. WOOD, *Sec.*

Honey and Beeswax Market.

Office of the AMERICAN BEE JOURNAL,
Monday, 10 a. m., Nov. 9, 1885.

The following are the latest quotations for honey and beeswax received up to this hour:

CHICAGO.

HONEY.—It is in good demand, and for the best grades of white comb honey 15@16c. is obtained. Off-colored and dark find very slow sale. Extracted is steady at 5@8c. per lb.

BEESWAX.—24@25c. Offerings of honey and wax are light.

R. A. BURNETT, 161 South Water St.

BOSTON.

HONEY.—It is selling very well but prices are very low, and we are often obliged to shade our prices in order to make rates. We quote comb honey in 1-lb. sections at 14@16c., and 2-lb. sections at 12@14c. Extracted, 6@8c.

BEESWAX.—30 cts. per lb.

BLAKE & RIPLEY, 57 Chatham Street.

NEW YORK.

HONEY.—The market for comb honey is quite active, and the demand nearly equal to the supply. Prices are gradually shading, owing to the fact of many producers selling their entire crop in this city at very low prices, thereby enabling the purchasers to sell low and realize a handsome profit. Large lots have been sold here at 9@10c. for fancy goods. In consequence of no honey coming in from the West, we can see no reason why good prices should not be obtained, except as above stated. Present quotations are: Fancy white 1-lb. sections, 14@15c.; the same in 2-lb. sections, 11½@12½c.; fancy buckwheat honey in 1-lb. sections, 11@12c.; in 2-lbs., 9@10c. Off grades 1 to 2c. less.

BEESWAX—Prime yellow, 25@28c.

McCAUL & HILDRETH BROS., 34 Hudson St.

CINCINNATI.

HONEY.—There is no material change in the market. Demand is slow for manufacturing purposes, while the trade is fair in comb and extracted honey for table use. Arrivals are good. Choice comb honey brings 14@16c. per lb. in a jobbing way, and extracted honey, 4@8c., according to quality.

BEESWAX.—Home demand is fair, and it brings 20@22c. for choice yellow, on arrival.

C. F. MUTH, Freeman & Central Ave.

SAN FRANCISCO.

HONEY.—Arrivals are quite light, with a probability of so continuing through the balance of the season. There is some inquiry for best qualities, with a firm market for the same. Quotations are as follows: White to extra white comb, 9@11c.; dark to good, 5@8c. Extracted, white liquid, 5@5½ cts.; light amber colored, 4½@5c.; amber and candied, 4½c.

BEESWAX.—Quotable at 23@25c., wholesale.

O. B. SMITH & Co., 423 Front Street.

CLEVELAND.

HONEY.—The market since our last report has improved very much and there is a good opening for very choice white 1-lb. sections, for which 14@15c. is obtained. Our stock of new is very light at present but of the old we have a good supply which we sell at 10@13c. for wh te 1-lb. sections. Extracted honey is slow at 6@7c. for best white clover and basswood.

BEESWAX.—Very scarce at 20@22c.

A. C. KENDEL, 115 Ontario Street.

KANSAS CITY.

HONEY.—The demand for all kinds of honey is good and prices are much improved. Choice 1-lb. sections bring 16@17c. on arrival, and demand is in excess of receipts. It would be better to ship now while the weather will admit, as it will come in good shape and bring good prices. Two-pound sections are sold now nearly altogether from California stock, as it is cheaper than any other kind; 12½@14c. being the ruling rates for it. Extracted is in fair demand at 4@5c. for dark, and 6@8c. for light.

BEESWAX.—It is a little firmer at 23c. for good average.

CLEMONS, CLOON & Co., cor. 4th & Walnut.

WEEKLY EDITION
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ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

SPECIAL NOTICE.—On January 1,1886, the price of the Weekly BEE JOURNAL will be reduced to *One Dollar a Year*. This we have contemplated for some years, and only awaited the proper time to warrant us in issuing the Weekly BEE JOURNAL at the very low price of *one dollar* a year. That time has now come. We shall continue to improve the BEE JOURNAL, and it will maintain its proud position as the leading bee-paper of the World!

New subscribers will be supplied with the Weekly from now until the end of the year 1886, for **$1.25.**

Those who have already subscribed for any portion of *next year* will have the time beyond January 1st doubled. These changes in the mail-list type are already made.

"Don't Stop"—that is what many write to us about their papers, when their time is nearly out. One subscriber says: "This has been a year of disaster, and it is not convenient for me to send you the money now to renew my subscription. It runs out with this month; *but don't stop sending it.* I will get the money to you within three months." Such letters are coming every day, and so for the present we have concluded not to stop any papers until requested to do so.

Agents can sell the Guide and Hand-Book like "hot-cakes." Send us an order for five copies (with $2.50) and we will send you the Weekly BEE JOURNAL *free* for a year. This is a *rare* opportunity to get the Weekly BEE JOURNAL without cost!!

The Guide and Hand-Book, is a book of ready reference and an encyclopædia of everything desirable to know. As a guide to the home-seeker, it is invaluable. Its contents are partially given on page 718, and will convince any one of its value. We do not think any of our readers can afford to do without it. As a book of ready reference we find it of great value in our library. We will send the Weekly BEE JOURNAL for a year and the Guide for $1.30.

Honey as Food and Medicine.

☞ To create Honey Markets in every village, town and city, wide-awake honey producers should get the Leaflets "Why Eat Honey" (only 50 cents per 100), or else the pamphlets on "Honey as Food and Medicine," and scatter them plentifully, and the result will be a DEMAND for all of their crops at remunerative prices. "Honey as Food and Medicine" are sold at the following prices:

Single copy, 5 cts.; per doz., 40 cts.; per hundred, $2.50. Five hundred will be sent postpaid for $10.00; or 1,000 for $15,00. On orders of 100 or more, we will print, if desired, on the cover-page, "Presented by," etc. (giving the name and address of the bee-keeper who scatters them).

To give away a copy of "Honey as Food and Medicine" to every one who buys a package of honey, will sell almost any quantity of it.

The Western World Guide and Hand-Book of Useful Information, contains the greatest amount of useful information ever put together in such a cheap form. The printing, paper, and binding are excellent, and the book is well worth a dollar. To any one sending us two *new* subscribers besides their own, with $3, for one year, we will present a copy of this valuable book.

☞ Our rates for two or more copies of the book, "Bees and Honey," may be found on the Book List on the second page of this paper. Also wholesale rates on all books where they are purchased "to sell again."

☞ **Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview by sending the names to this office, or we will send them all to the agent.

Preserve your papers for reference. If you have no **BINDER** we will mail you one for 75 cents, or you can have one FREE if you will send us 4 new yearly subscriptions for the BEE JOURNAL.

To Correspondents.—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

We have received E. H. Cook's Club-List of Newspapers, Magazines, etc., for 1886. He is the successor of G. M. Doolittle in this business, at Andover, Conn.

Advertisements.